



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,154	01/14/2002	Nobuya Harano	2001P005978	5070

30743 7590 03/26/2004

WHITHAM, CURTIS & CHRISTOFFERSON, P.C.
11491 SUNSET HILLS ROAD
SUITE 340
RESTON, VA 20190

EXAMINER

WEST, LEWIS G

ART UNIT PAPER NUMBER

2682

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,154

Applicant(s)

HARANO, NOBUYA

Examiner

Lewis G. West

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

2. The drawings are objected to because in Figures 1B, 2B, 3B and 4, "senser" should be spelled "sensor". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 2, claim 1 discloses both antennae in the lower part of a housing, while claim 2 discloses 1 in the upper and one in the lower part. It is assumed for examination that the error is in claim 1 and that the first antenna and the second antenna are in the upper and lower housings, respectively. Correction is required.

Regarding claim 3, the term "normally used" had undeterminable scope, as there is no way to determine an antenna use that is not normal. For examination it will be interpreted as a useable antenna. Correction is required.

Art Unit: 2682

Claims 4-8 are also rejected under USC 112, as they depend from directly or indirectly form claim 1.

Claim 9 currently discloses switching operation from the antenna to the “own portable terminal device”. It is assumed for examination that operation is switched from the antenna to another of the plurality of antennae. Correction is required

Claim 10 discloses, “a second housing provided with a second housing”. It is assumed for examination that it is provided with a second antenna. Appropriate correction is required.

Claim 13 discloses “light change through the head or hand”. It is unclear how the amount of light coming through someone’s head or hand can change. For examination this limitation will be treated as a “light change”. Correction is required.

Claims 11-15 are also rejected under USC 112, as they depend from directly or indirectly form claim 9.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-6 and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Katsura (US 6,628,962).

Regarding claim 1, Katsura discloses a portable radio terminal device for radio communication by using an antenna provided in a housing capable of being held by one hand, wherein: a first antenna disposed in a lower part of the housing and a second antenna disposed in a lower part of the housing for radio communication, are provided and selectively switched one over to the other for use. (Figures 2, 3; Col. 6 lines 13-63)

Regarding claim 2, Katsura discloses the portable radio terminal device according to claim 1, wherein the housing is of a foldable type comprising an upper and a lower housing hinged together by a hinge part, the first and second antennas are disposed in the lower and upper housings, respectively. (Figures 2, 3; Col. 6 lines 13-63)

Regarding claim 3, Katsura discloses the portable radio terminal device according to claim 1, wherein the first or the second antenna is predetermined to be a normally used antenna. (Figures 2, 3; Col. 6 lines 13-63)

Regarding claim 9, Katsura discloses a portable radio terminal device comprising: a plurality of antennas separately provided; a detector for detecting the deterioration of antenna characteristic; and a switch for switching, on the basis of the detected result, the operation from the deteriorated antenna to the own portable radio terminal device. (Figures 2, 3; Col. 6 lines 13-63)

Regarding claim 10, Katsura discloses the portable radio terminal device according to claim 9, wherein the portable radio terminal device is a foldable type including a first housing provided with a first antenna and a second housing provided with a second housing which are hinged together by a hinge part. (Figures 2, 3; Col. 6 lines 13-63)

Art Unit: 2682

7. Claims 1-5, 7-9, 11-12 and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Mizoguchi (US 6,678,532).

Regarding claim 1, Mizoguchi discloses a portable radio terminal device for radio communication by using an antenna provided in a housing capable of being held by one hand, wherein:

a first antenna disposed in a lower part of the housing and a second antenna disposed in a lower part of the housing for radio communication, are provided and selectively switched one over to the other for use. (Col. 10 line 47-Col 12- line 8)

Regarding claim 3, Mizoguchi discloses the portable radio terminal device according to claim 1, wherein the first or the second antenna is predetermined to be a normally used antenna. (Col. 10 line 47-Col 12- line 8)

Regarding claim 4, Mizoguchi discloses the portable radio terminal device according to claim 3, wherein a sensor for sensing that the normally used first antenna or the second antenna is covered with a hand is provided, the antenna in use being switched over to the other antenna in response to the output of a detection signal from the sensor. (Col. 10 line 47-Col 12- line 8)

Regarding claim 5, Mizoguchi discloses the portable radio terminal device according to claim 4, wherein the sensor is a touch sensor. (Col. 10 line 47-Col 12- line 8)

Regarding claim 7, Mizoguchi discloses the portable radio terminal device according to claim 4, wherein a plurality of sensors are used to sense the covering of the antenna. (Col. 10 line 47-Col 12- line 8)

Regarding claim 8, Mizoguchi discloses the portable radio terminal device according to claim 4, wherein the sensor is an impedance change detecting means for detecting a change in the impedance of the antenna. (Col. 10 line 47-Col 12- line 8)

Regarding claim 9, Mizoguchi discloses a portable radio terminal device comprising: a plurality of antennas separately provided; a detector for detecting the deterioration of antenna characteristic; and a switch for switching, on the basis of the detected result, the operation from the deteriorated antenna to the own portable radio terminal device. (Col. 10 line 47-Col 12- line 8)

Regarding claim 11, Mizoguchi discloses to claim 9, wherein the detector detects the antenna at least a part of which is covered with a hand or is touched with a head. (Col. 10 line 47-Col 12- line 8)

Regarding claim 12, Mizoguchi discloses the portable radio terminal device according to claim 9, wherein the detector is a touch sensor for detecting the touch of hand or head. (Col. 10 line 47-Col 12- line 8)

Regarding claim 14, Mizoguchi discloses the portable radio terminal device according to claim 9, wherein the detector detects an impedance change of the antenna. (Col. 10 line 47-Col 12- line 8)

Regarding claim 15, Mizoguchi discloses the portable radio terminal device according to claim 1, wherein a plurality of detectors are provided. (Col. 10 line 47-Col 12- line 8)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsura in view of Bowen et al.

Regarding claim 6, Katsura discloses the portable radio terminal device according to claim 4, but does not disclose an optical sensor. Bowen discloses a mobile radiotelephone wherein a sensor for detecting human proximity for changing functions of the phone is an optical sensor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Katsura to use an optical sensor to detect human proximity as it would indicate a change in the use state and therefore indicate the antenna which should be used.

Regarding claim 13, Katsura discloses the portable radio terminal device according to claim 9, wherein the detector is an optical sensor sensitive to light change. Bowen discloses a mobile radiotelephone wherein a sensor for detecting human proximity for changing functions of the phone is an optical sensor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Katsura to use an optical sensor to detect human proximity as it would indicate a change in the use state and therefore indicate the antenna which should be used.

Art Unit: 2682

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Werling (6,456,856) also switches antenna usage based on detection from a sensor which detects human presence, including an infrared sensor. Sekine (US 6,336,037) and Narayanaswamy (5,905,467) disclose hinged mobile communications devices with antennas in each section.

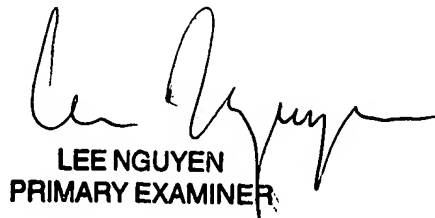
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 703-308-9298. The examiner can normally be reached on Monday-Thursday 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lewis West
(703) 308-9298
March 13, 2004



LEE NGUYEN
PRIMARY EXAMINER